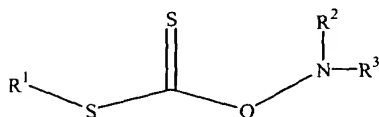


What is claimed is:

- 1           1. A compound characterized by the general formula:



- 3           wherein R¹ is any group that can be expelled as its free radical form in an addition-  
4 fragmentation reaction;

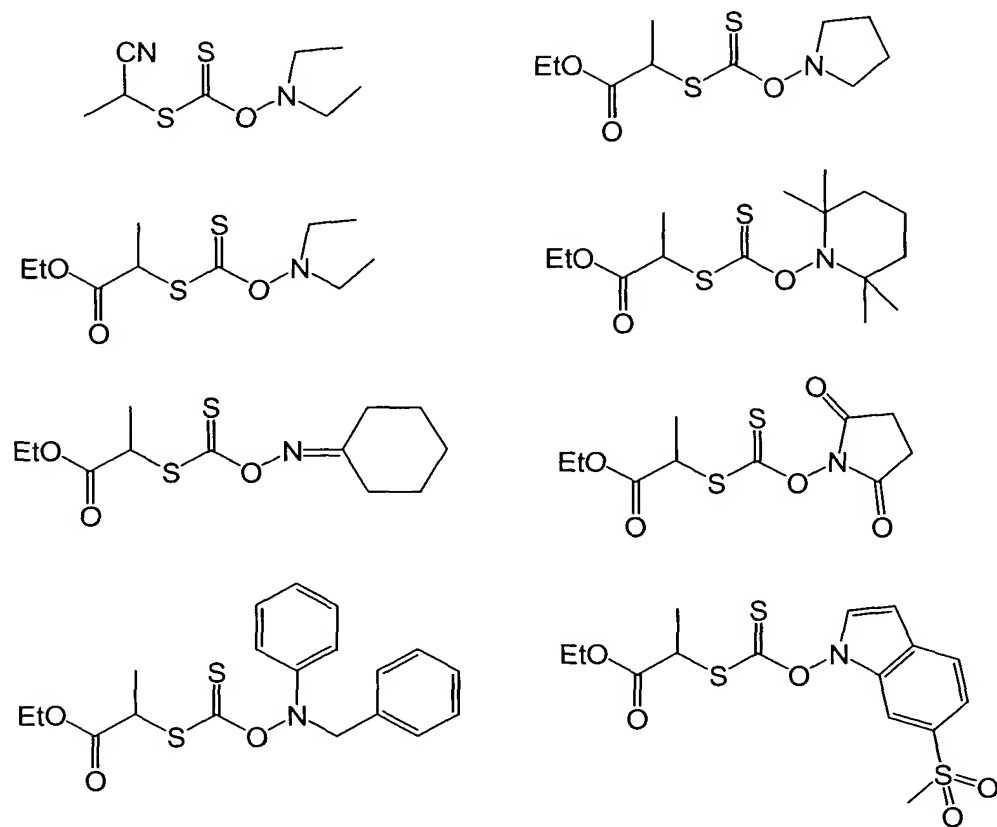
- 5           R² and R³ are each independently selected from the group consisting of hydrogen,  
6 hydrocarbyl, substituted hydrocarbyl, heteroatom-containing hydrocarbyl, substituted  
7 heteroatom-containing hydrocarbyl, and combinations thereof, and optionally R² and R³  
8 are joined together in a ring structure having from 3 to 50 atoms in the backbone of the  
9 ring; also optionally, R² and R³ are joined together to form a double bond optionally  
10 substituted alkenyl moiety.

- 1           2. The compound of claim 1, wherein R¹ is selected from the group consisting of  
2 optionally substituted alkyl, optionally substituted aryl, optionally substituted alkenyl,  
3 optionally substituted alkoxy, optionally substituted heterocyclyl, optionally substituted  
4 alkylthio, optionally substituted amino and optionally substituted polymer chains.

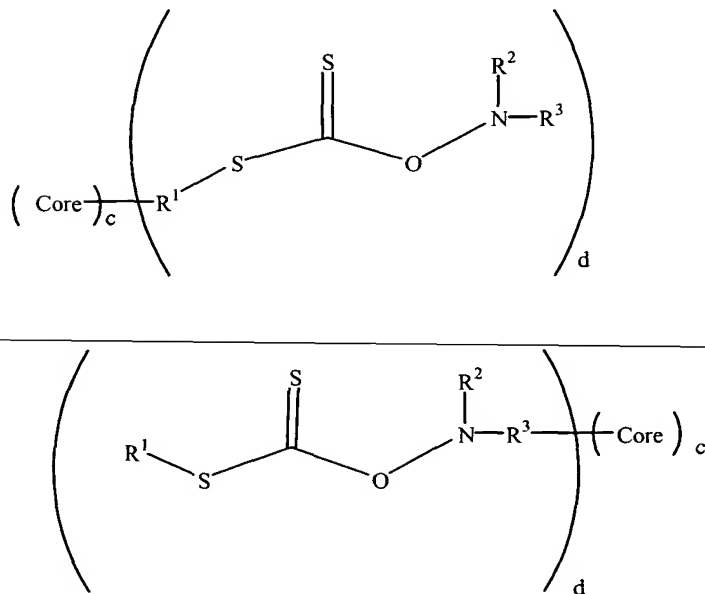
- 1           3. The compound of claim 2, wherein R¹ is selected from the group consisting of  
2 -CH₂Ph, -CH(CH₃)CO₂CH₂CH₃, -CH(CO₂CH₂CH₃)₂, -C(CH₃)₂CN, -CH(Ph)CN,  
3 -C(CH₃)₂Ph, -CH(CH₃)CN, and -CH₂CH₂CH₂CH₃.

- 1           4. The compound of claim 1, wherein R² and R³ are each independently selected  
2 from the group consisting of hydrogen, optionally substituted alkyl, optionally  
3 substituted aryl, optionally substituted alkenyl, optionally substituted acyl, optionally  
4 substituted, aroyl, optionally substituted alkoxy, optionally substituted heteroaryl,  
5 optionally substituted heterocyclyl, optionally substituted alkylsulfonyl, optionally  
6 substituted alkylsulfinyl, optionally substituted alkylphosphonyl, optionally substituted  
7 arylsulfinyl, and optionally substituted arylphosphonyl.

- 8           5. The compound of claim 1, wherein R² and R³ form an optionally substituted  
9 heterocycle ring.



13        7. A compound characterized from any of the following general formulas:



15 wherein R<sup>1</sup> is any group that group that can be expelled as its free radical form in an  
16 addition-fragmentation reaction;

17 R<sup>2</sup> and R<sup>3</sup> are each independently selected from the group consisting of hydrogen,  
18 hydrocarbyl, substituted hydrocarbyl, heteroatom-containing hydrocarbyl, and  
19 substituted heteroatom-containing hydrocarbyl, and combinations thereof; and optionally  
20 R<sup>2</sup> and R<sup>3</sup> together to form a double bond optionally substituted alkenyl moiety; and also  
21 optionally R<sup>2</sup> and R<sup>3</sup> together joined in a ring structure having from 3 to 50 atoms in the  
22 ring backbone;

23 Core is a core molecule;

24 c is 1 or more; and

25 d is 2 or more.

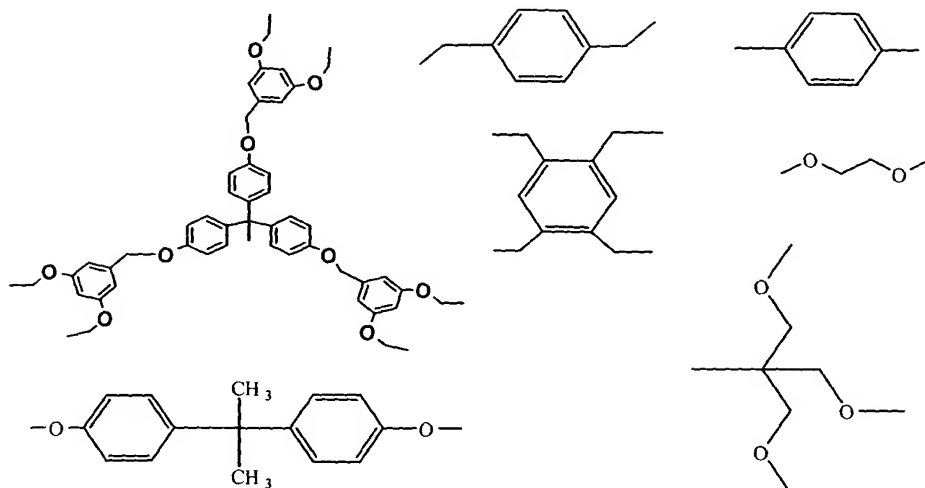
1 8. The compound of claim 7, wherein R<sup>1</sup> is selected from the group consisting of  
2 optionally substituted alkyl, optionally substituted aryl, optionally substituted alkenyl,  
3 optionally substituted alkoxy, optionally substituted heterocyclyl, optionally substituted  
4 alkylthio, optionally substituted amino and optionally substituted polymer chains.

1 9. The compound of claim 8, wherein R<sup>1</sup> is selected from the group consisting of –  
2 CH<sub>2</sub>Ph, –CH(CH<sub>3</sub>)CO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, –CH(CO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>)<sub>2</sub>, –C(CH<sub>3</sub>)<sub>2</sub>CN, –CH(Ph)CN and  
3 –C(CH<sub>3</sub>)<sub>2</sub>Ph, –CH(CH<sub>3</sub>)CN, –CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>.

1 10. The compound of claim 7, wherein R<sup>2</sup> and R<sup>3</sup> are each independently selected  
2 from the group consisting of hydrogen, optionally substituted alkyl, optionally  
3 substituted aryl, optionally substituted alkenyl, optionally substituted acyl, optionally  
4 substituted, aroyl, optionally substituted alkoxy, optionally substituted heteroaryl,  
5 optionally substituted heterocyclyl, optionally substituted alkylsulfonyl, optionally  
6 substituted alkylsulfinyl, optionally substituted alkylphosphonyl, optionally substituted  
7 arylsulfinyl, and optionally substituted arylphosphonyl.

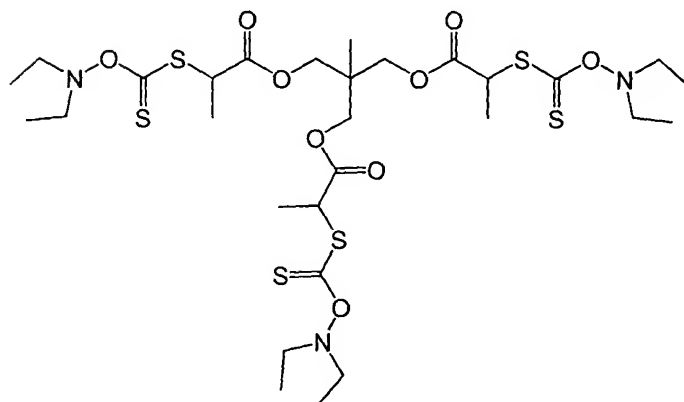
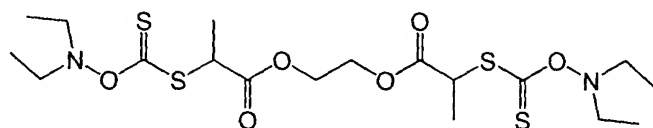
~~1 11. The compound of claim 7, wherein wherein R<sup>2</sup> and R<sup>3</sup> form an optionally~~  
2 substituted heterocycle ring.

1 12. The compound of claim 7, wherein Core is selected from the group consisting of:



2

- 1 13. The compound of claim 7, wherein the compound is selected from the group  
 2 consisting of:



3

